

10/017,577
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(FILE 'HOME' ENTERED AT 12:15:04 ON 07 DEC 2004)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT
12:15:23 ON 07 DEC 2004

L1 2581 S (ENZYME CONJUGATE)
L2 472 S L1 AND DRUG?
L3 378 S L2 AND ANTIBOD?
L4 0 S L3 AND ARRAY?
L5 24 S L3 AND IMMOBILI?
L6 22 DUPLICATE REMOVE L5 (2 DUPLICATES REMOVED)
L7 6 S L1 AND COCAINE?
L8 4 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)

=>

ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1992:190639 CAPLUS
DN 116:190639
ED Entered STN: 16 May 1992
TI An analyte-substitute reagent for use in specific binding assay methods,
devices and kits
IN Baugher, Bennett W.; Devereaux, Sharon M.; Chamberlain, Aurora J.;
Ungemach, Frank S.
PA Abbott Laboratories, USA
SO Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G01N033-53
ICS G01N033-543
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 4, 23, 24, 25
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 467078	A2	19920122	EP 1991-109936	19910618
	EP 467078	A3	19920506		
	EP 467078	B1	19960508		
	R: DE, ES, FR, IT				
	ES 2089057	T3	19961001	ES 1991-109936	19910618
	CA 2047050	AA	19920119	CA 1991-2047050	19910715
	JP 04232860	A2	19920821	JP 1991-178035	19910718
	JP 2579392	B2	19970205		
	US 5340748	A	19940823	US 1993-67254	19930525
	US 5501985	A	19960326	US 1994-230995	19940421
PRAI	US 1990-554304	A	19900718		
	US 1993-67254	A1	19930525		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 467078	ICM	G01N033-53
	ICS	G01N033-543
EP 467078	ECLA	G01N033/543B; G01N033/94
US 5501985	ECLA	G01N033/543B; G01N033/94H

AB Reagents, devices, methods, and kits used in the anal. of low-mol.-weight compds. too small to bind 2 sp.-binding members at the same time are described. The method comprises (a) contacting the test sample sequentially or simultaneously with (i) an analyte-substitute reagent comprising an analyte component attached to a ligand component and (ii) a 1st sp. binding member capable of binding an epitope on both the test analyte and the analyte component; (b) contacting mixture from a sequentially or simultaneously with (i) a capture reagent comprising a 2nd binding member sp. for the analyte-substitute reagent and (ii) an indicator reagent comprising a label and a 3rd binding member for binding the reagent; and (c) detecting bound or free label. The analyte component has ≥ 1 epitope in common with the analyte, and the ligand component binds to a ligand-binding member but is not reactive with the analyte-sp. binding member. A competitive EIA for **cocaine** in urine is described using antibody to a **cocaine** analog (preparation described) (I), a I-fluorescein derivative complex as the analyte-substitute reagent, and antifuorescein antibody capture reagent conjugated to latex microparticles.

ST small analyte specific binding assay; immunoassay small analyte; competitive immunoassay small analyte; **cocaine** competitive EIA; enzyme immunoassay **cocaine**

IT Latex
(carboxy-derivatized, microparticles, conjugates with anti-fluorescein

antibody, for **cocaine** immunoassay)

IT Surfactants
(effect of, in morphine immunoassay)

IT Immunoassay
(of low-mol.weight analyte, analyte-substitute reagents for)

IT Antibodies
RL: ANST (Analytical study)
(to **cocaine** analog, **enzyme conjugates**, in **cocaine** immunoassay)

IT Immunoassay
(competitive, of low-mol.weight analyte, analyte-substitute reagents for)

IT Albumins, compounds
RL: ANST (Analytical study)
(conjugates, with **cocaine** analog, as immunogen for **cocaine**-reactive antibodies)

IT Thyroglobulins
RL: ANST (Analytical study)
(conjugates, with morphine analog, in morphine immunoassay)

IT 2321-07-5, Fluorescein
RL: ANST (Analytical study)
(antibodies to, in **cocaine** immunoassay)

IT 20290-09-9D, thyroglobulin conjugates
RL: ANST (Analytical study)
(as immunogen for antibodies to morphine)

IT 57-27-2, Morphine, analysis
RL: ANT (Analyte); ANST (Analytical study)
(determination of, by immunoassay)

IT 50-36-2, **Cocaine**
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in urine, by competitive EIA)

IT 140457-30-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amination of, in **cocaine** analog preparation for immunoassay)

IT 119094-47-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amination of, in preparation of reagent for morphine immunoassay)

IT 5796-31-6P, Ecgonine hydrochloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and esterification of, in **cocaine** analog preparation for immunoassay)

IT 119094-63-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of, in preparation of reagent for morphine immunoassay)

IT 140457-34-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, as **cocaine** analog for immunoassay)

IT 7143-09-1P, Ecgonine methyl ester 140457-31-4P 140457-32-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in **cocaine** analog preparation for immunoassay)

IT 140457-34-7DP, albumin conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as immunogen, for preparation of antibodies reactive with

cocaine)

IT 82169-58-2DP, reaction products with morphine derivative 140476-25-1DP,
 reaction products with fluorescein derivative
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as reagent in morphine immunoassay)

IT 140476-25-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, in preparation of reagent for morphine immunoassay)

IT 34619-03-9, Di-tert-butylcarbonate
 RL: ANST (Analytical study)
 (reaction of with **cocaine** analog, in **cocaine** analog
 preparation for immunoassay)

IT 9001-78-9D, conjugates with antibodies
 RL: ANST (Analytical study)
 (to **cocaine** analog, for **cocaine** immunoassay)

IT 9003-53-6D, Polystyrene, conjugates with antibodies
 RL: ANST (Analytical study)
 (to fluorescein, in morphine immunoassay)

IT 51306-35-5D, complexes
 RL: ANST (Analytical study)
 (with **cocaine** analog, as reagent for **cocaine**
 immunoassay)

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(with **cocaine** analog, as reagent for **cocaine**
immunoassay)

ANSWER 1 OF 4 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
 DUPLICATE 1
 AN 1994:399497 BIOSIS
 DN PREVI99497412497
 TI Improved sensitivity of enzyme immunoassay for **cocaine** and
 benzoylecgonine using heterologous hapten-enzyme
conjugates.
 AU Chen, Peilin; Watt, David S.; Tai, Hsin-Hsiung [Reprint author]
 CS Div. Med. Chem., Coll. Pharm., Univ. Ky., Lexington, KY 40536, USA
 SO Research Communications in Substances of Abuse, (1994) Vol. 15, No. 1-2,
 pp. 71-80.
 CODEN: RCSADO. ISSN: 0193-0818.
 DT Article
 LA English
 ED Entered STN: 14 Sep 1994
 Last Updated on STN: 15 Sep 1994
 AB Antibodies for **cocaine** and benzoylecgonine were prepared by
 established methods using diazotized 4-aminococaine or
 4-aminobenzoylecgonine conjugated to bovine serum albumin as immunogens.
 Enzyme immunoassay was first developed using diazotized 4-aminococaine or
 4-aminobenzoylecgonine conjugated to horseradish peroxidase as the enzyme
 labels. The IC-50's of **cocaine** and benzoylecgonine were 4 ng/ml
 and 2 ng/ml for their respective antibodies. However, the IC-50's of
cocaine and benzoylecgonine decreased to 0.4 ng/ml and 0.1 ng/ml
 respectively when two heterologous haptens, 4-formylcocaine and 4-formyl
 benzoylecgonine, were synthesized and used for enzyme labeling. The
 sensitivity of the assays was considerably improved using the heterologous
 bridge strategy.
 CC Biochemistry studies - General 10060
 Biochemistry studies - Proteins, peptides and amino acids 10064
 Enzymes - Methods 10804
 Pharmacology - Neuropharmacology 22024
 Toxicology - Pharmacology 22504
 Immunology - General and methods 34502
 IT Major Concepts
 Enzymology (Biochemistry and Molecular Biophysics); Immune System
 (Chemical Coordination and Homeostasis); Pharmacology; Toxicology
 IT Chemicals & Biochemicals
COCAINE; BENZOYLECGONINE
 IT Miscellaneous Descriptors
 ANALYTICAL METHOD; ANTIBODY CROSS-REACTIVITY; 4-AMINO BENZOYLECGONINE;
 4-AMINOCOCAINE
 ORGN Classifier
 Hominidae 86215
 Super Taxa
 Primates; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name
 human
 Taxa Notes
 Animals, Chordates, Humans, Mammals, Primates, Vertebrates
 RN 50-36-2 (**COCAINE**)
 519-09-5 (**BENZOYLECGONINE**)

ANSWER 1 OF 4 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

DUPLICATE 1

AN 1994:399497 BIOSIS

DN PREV199497412497

TI Improved sensitivity of enzyme immunoassay for **cocaine** and benzoylecgonine using heterologous hapten-**enzyme conjugates**.

AU Chen, Peilin; Watt, David S.; Tai, Hsin-Hsiung [Reprint author]

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DT Article

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ED Entered STN: 14 Sep 1994

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AB Antibodies for **cocaine** and benzoylecgonine were prepared by established methods using diazotized 4-aminococaine or 4-aminobenzoylecgonine conjugated to bovine serum albumin as immunogens. Enzyme immunoassay was first developed using diazotized 4-aminococaine or 4-aminobenzoylecgonine conjugated to horseradish peroxidase as the enzyme labels. The IC-50's of **cocaine** and benzoylecgonine were 4 ng/ml and 2 ng/ml for their respective antibodies. However, the IC-50's of **cocaine** and benzoylecgonine decreased to 0.4 ng/ml and 0.1 ng/ml respectively when two heterologous haptens, 4-formylcocaine and 4-formyl benzoylecgonine, were synthesized and used for enzyme labeling. The sensitivity of the assays was considerably improved using the heterologous bridge strategy.

CC Biochemistry studies - General 10060

Biochemistry studies - Proteins, peptides and amino acids 10064

Enzymes - Methods 10804

Pharmacology - Neuropharmacology 22024

Toxicology - Pharmacology 22504

Immunology - General and methods 34502

IT Major Concepts

Enzymology (Biochemistry and Molecular Biophysics); Immune System (Chemical Coordination and Homeostasis); Pharmacology; Toxicology

IT Chemicals & Biochemicals

COCAINE; BENZOYLECGONINE

IT Miscellaneous Descriptors

ANALYTICAL METHOD; ANTIBODY CROSS-REACTIVITY; 4-AMINO BENZOYLECGONINE; 4-AMINOCOCAINE

ORGN Classifier

Hominidae 86215

Super Taxa

Primates; Mammalia; Vertebrata; Chordata; Animalia

Organism Name

human

Taxa Notes

Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 50-36-2 (**COCAINE**)

519-09-5 (**BENZOYLECGONINE**)

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L8	4 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)

=>

ANSWER 15 OF 22 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1992:189194 CAPLUS

DN 116:189194

ED Entered STN: 16 May 1992

TI Evaluation of rapid qualitative **drugs** of abuse kits

AU Anderson, G.; Colletti, A.; Foley, T.; Golkar, S.; Miao, R.; Patel, A.;
Paez, S.; Scott, M.

CS Hycor Biomed. Inc., Garden Grove, CA, USA

SO American Clinical Laboratory (1992), 11(1), 26

CODEN: ACLAE7; ISSN: 1041-3235

DT Journal

LA English

CC 4-2 (Toxicology)

AB The accuPINCH qual. screening kits (Hycor Biomedical Inc., Garden Grove, California) are easy to use and require little training and need no instrumentation. The test is a competitive immunoassay that incorporates the use of an enzyme conjugated to the resp. **drug**, a disk with **antibody** against the **drug** (separation disk), and a second disk containing a chromogen (detection disk). The chromogen system **immobilized** on the detection disk is ABTS in combination with horseradish peroxidase (HRP) and glucose. In the presence of **enzyme conjugate**, glucose is oxidized forming hydrogen peroxide. The latter serves as a reactant in the HRP-mediated oxidation of ABTS. The resulting green color is visually interpreted on the detection disk.

ST abuse **drug** kit evaluation; forensic abuse **drug**
screening kit

IT Pharmaceutical analysis

(**drug** screening in, forensic, screening kits in relation to)

IT Legal chemistry and medicine

(screening kits for abuse **drug** anal. in)

ANSWER 15 OF 22 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:189194 CAPLUS
DN 116:189194
ED Entered STN: 16 May 1992
TI Evaluation of rapid qualitative **drugs** of abuse kits
AU Anderson, G.; Colletti, A.; Foley, T.; Golkar, S.; Miao, R.; Patel, A.;
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CS Hycor Biomed. Inc., Garden Grove, CA, USA
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CODEN: ACLAE7; ISSN: 1041-3235
DT Journal
LA English
CC 4-2 (Toxicology)
AB The accuPINCH qual. screening kits (Hycor Biomedical Inc., Garden Grove,
California) are easy to use and require little training and need no
instrumentation. The test is a competitive immunoassay that incorporates
the use of an enzyme conjugated to the resp. **drug**, a disk with
antibody against the **drug** (separation disk), and a second
disk containing a chromogen (detection disk). The chromogen system
immobilized on the detection disk is ABTS in combination with
horseradish peroxidase (HRP) and glucose. In the presence of
enzyme conjugate, glucose is oxidized forming hydrogen
peroxide. The latter serves as a reactant in the HRP-mediated oxidation of
ABTS. The resulting green color is visually interpreted on the detection
disk.
ST abuse **drug** kit evaluation; forensic abuse **drug**
screening kit
IT Pharmaceutical analysis
(**drug** screening in, forensic, screening kits in relation to)
IT Legal chemistry and medicine
(screening kits for abuse **drug** anal. in)